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| 10/764,344 | 01/23/2004 | Francis J. Masciarelli | A2000-700119 | 5778 |

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| EXAMINER | |
|---|---|
| DEBERADINIS, ROBERT L | |
| **ART UNIT** | **PAPER NUMBER** |
| 2836 | |

| NOTIFICATION DATE | DELIVERY MODE |
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| 11/30/2007 | ELECTRONIC |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@ll-a.com
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| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/764,344 | MASCIARELLI ET AL. | |
| | Examiner | Art Unit | |
| | Robert DeBeradinis | 2836 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *26 October 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-74,78-86 and 88-100* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-74,78-86 and 88-100* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 October 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *10/26/07*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6,14-19,21,29-32,35-39,42-46,54-59,67-69,72-74,78-80,85,86,88,95,98,99-100 are rejected under 35 U.S.C. 102(b) as being anticipated by SIMONELLI et al. 5,982,652.

CLAIMS 1,44,72-74,78

SIMONELLI et al. discloses an uninterruptible power supply comprising: a frame (chassis); a power input to receive input power from a power source (claim 1); a power output to provide power to a load (claim 1); at least one battery module (claim 1) mounted in the frame and having a battery output that provides battery power; at least one power module (claim 1) mounted in the frame and coupled to the power input to receive the input power, coupled to the battery output to receive the battery power, and coupled to the power output (546) to provide the output power from at least one of the battery power (bus 550) and the input power (bus 544); a first controller coupled to the at least one power module; and a second controller , substantially similar to the first controller, coupled to the first controller, and coupled to the at least one power module; wherein each of the first controller and the second controller is configured to determine operational parameters of the power supply system and store a first set of parameters

determined by the first controller and a second set of parameters determined by the second controller (operation parameters are inherent to the controllers in order to provide the controlling functions for the uninterruptible power supply, example the controller needs to determine a failure from the monitored data in order to know when to transfer control to the redundant controller.)

CLAIMS 2,18,43

**SIMONELLI et al. discloses** wherein the first controller functions as a main controller in the power supply system and controls the output power of the power module, and wherein the first controller and the second controller are configured to allow the second controller to control the output power upon failure of the first controller (claim 1).

CLAIMS 3,19

**SIMONELLI et al. discloses** wherein the at least one power module includes a plurality of power modules, and the at least one battery module includes a plurality of power modules (FIG. 6, plurality of battery modules forms a battery source and uninterruptible power supply includes a plurality of power modules).

CLAIMS 4,45,79

**SIMONELLI et al. discloses** further comprising a communications bus coupled to the first controller, the second controller and the at least one power module to provide duplex communication between the first controller, the second controller and the at least one power module; wherein the first controller is configured to function as master of the communications bus and control communications on the bus, and the second controller is configured to function as master of the communications bus upon failure of the first controller (CLAIM 18, the controlling controller is inherently the master of the communications bus in order to control the power supply system).

CLAIMS 6,21,32,46,59,69,80,88,95

**SIMONELLI et al. discloses** wherein the power input is configured to receive input power having a first input phase line, a second input phase line and a neutral input line, wherein the first controller is coupled to the power input and configured to detect an input phase difference between the first input phase line and the second input phase line, and to control the power module to provide output power having a first output phase line, a second output phase line and a neutral output line, with an output phase difference between the first output phase line and the second output phase line substantially equal to the input phase difference (PARAGRAPH 33, SYNCHRONIZING OUTPUT PHASE WITH INPUT PHASE).

CLAIMS 14,29

**SIMONELLI et al. discloses** wherein each of the first controller and the second controller are adapted to receive an input signal from the frame, and based on a state of the input signal, to function as a main controller or a redundant controller.

CLAIMS 5,15,20,30,35,36,37,42,54,55,67,85,98,99

**SIMONELLI et al. discloses** wherein the first controller includes a memory device, and is configured to sense an output voltage at the power output, and compare the output voltage with upper and lower threshold levels derived from data contained in the memory device to determine if the output voltage is within a predetermined range (PARAGRAPH 44).

CLAIMS 16,31,38,39,68,86,100

**SIMONELLI et al. discloses** wherein the first controller is configured to sense an output current at the power output, compare the output current with a short circuit current value, compare the output voltage with an output short circuit voltage value, and provide indication of a short circuit present at the output if the output current exceeds the short circuit current value and the output voltage is less than the output short circuit voltage value (paragraph 16).

CLAIMS 17,56,57,58

**SIMONELLI et al. discloses** a power supply system comprising:
a power input to receive input power from a power source;
a power output to provide output power to a load;
at least one battery module having a battery output that provides battery power; at least one power module coupled to the power input to receive the input power, coupled to the battery output to receive the battery power, and coupled to the power output to provide the
output power; a first controller coupled to the at least one power module; and a second controller, coupled to the first controller, and coupled to the at least one power module; and a communications bus coupled to the first controller, the second controller and the at least one power module to provide duplex communication between the first controller, the second controller and the at least one power module; wherein the first controller is configured to function as master of the communications bus and control communications on the bus, and the second controller is configured to function as master of the communications bus upon failure of the first controller (paragraph 25).

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 7-13,22-28,33,34,40,41,47-53,60-66,70,71,81-84,89-94,96,97 are rejected under 35 U.S.C. 103(a) as being unpatentable over SIMONELLI et.al. 5,982,652.

CLAIMS 7,8,22,23,24,40,41,47,48,60,61,81,89

SIMONELLI et al. discloses the power supply system of claim 1.

SIMONELLI et al. does not disclose wherein each of the first controller and the second controller includes a cold start button, and wherein the power supply system is configured to be powered on from battery power with no input power present when one of the cold start buttons is activated by a user.

SIMONELLI et al. teaches the power supply system wherein each of the power modules can be constructed and arranged to select one of the battery power or the input power as a source for generating the output power (paragraph 13, last sentence).

It would have been obvious to one having ordinary skill in the art at the time of this invention to have provided a control to select the battery power as the desired source if the input source was noisy or not dependable to reduce power supply noise.

CLAIMS 9,10,25,33,34,49,50,62,63,70,71,82,83,90,91,93,94,96,97

SIMONELLI et al. discloses the power supply system of claim 1.

SIMONELLI et al. does not disclose wherein the first controller is coupled to the power input and is configured to detect input voltage and input current, and to reduce input current draw of the power supply system upon detection that the input voltage is less than a predetermined threshold.

SIMONELLI et al. teaches the redundant processor system 272 is coupled directly or indirectly to each of the other systems within the RIM, and similar to the slave processor system in the MIN, the redundant processor system provides control and monitoring of the critical functions of the UPS system, including regulation of output voltage, frequency and phase, monitoring of input voltage, input frequency and battery voltage, bypass control, and state control of the UPS system (paragraph 35).

It would have been obvious to one having ordinary skill in the art at the time of this invention to have monitored the input current and to have reduced the input current draw to prevent overloading of the input power source.

CLAIMS 11,12,26,27,51,52,64,65,

SIMONELLI et al. discloses the power supply system of claim 1.

SIMONELLI et al. does not disclose power meter coupled to the power output that determines output power of the power supply system.

It would have been obvious to one having ordinary skill in the art to connect a power meter to the output of the power system to measure output power of the system since the level of skill required for this task is considered to be within the level of skill one of ordinary skill would have.

CLAIMS 13,28,53,66,84,92

SIMONELLI et al. discloses the power supply system of claim 1.

SIMONELLI et al. does not disclose POWER SUPPLY SYSTEM further comprising an output fuse coupled to the power output, and a detection circuit, coupled to the output fuse and to the first controller that detects a voltage across the output fuse.

It would have been obvious to one having ordinary skill to modify the output of the power supply system to have a fuse to protect the power supply output in case of an extreme malfunction.

Any inquiry concerning this communication should be directed to Robert L. DeBeradinis whose number is (571) 272-2049. The Examiner can normally be reached Monday-Friday from 8:30 am to 5:00 pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Michael Sherry, can be reached on (571) 272-2058. The Fax phone number for this Group is (571) 272-8300.

RLD

NOVEMBER 26, 2007

ROBERT L. DEBERADINIS
PRIMARY EXAMINER